

# Can digitalisation support industrial decarbonisation?

AVEVA's Lisa Wee explains why investments in digital technology, clean energy and infrastructure will be key to helping businesses in the industrial sector achieve net-zero operations by 2050

BY REBECCA GIBSON

**N**ine in ten (89 per cent) businesses are committed to achieving net-zero carbon emissions across their businesses and to tackling climate change over the next five years, according to AVEVA's *Approaching The Age of Performance* report. But transitioning to sustainable operations is a complex endeavour. Ahead of Earth Day on 22 April 2023, AVEVA's global head of sustainability Lisa Wee breaks down how different types of emissions make up our carbon footprints and explains how digital solutions can help organisations operating in the industrial sector to achieve net zero by 2050.

## **Why is sustainability becoming more of a business priority?**

Industrial businesses see sustainability as important for their employees, for their bottom line and for the business longevity. They understand that sustainability helps to ensure their company is going to be returning long-term value, growing and competing for many years to come.

We all want to contribute to leaving a better world behind for the next generation. One way we can do that is by following the United Nations' Sustainable Development Goals, or what I call the 'world's global to-do list'. Achieving these goals offers economic benefits, opening up about \$12 trillion annually in market opportunities by 2030, according to the UN. They're also a way of making sure we leave the planet in a better condition than we found it.

## **What actions can industrial businesses take to help limit global warming to 1.5C?**

Climate is a cross-cutting issue for us all, and we're running out of time to resolve it. We need to take meaningful action this decade to ensure we are deploying technologies quickly and at scale to get to a net-zero economy – where the amount of greenhouse gas (GHG) produced equals the amount removed from the atmosphere – by 2050. The industrial sector is key to this transition because of our global carbon footprint. Along with the power industry, the industrial sector accounted for almost 65 per cent of the world's GHG emissions in 2020. That's why businesses should attend events such as the 28th UN Climate Change Conference (COP28), which will take place from 30 November to 12 December in the United Arab Emirates. It is only by partnering with national and international policymakers that we can truly achieve lasting change.

## **What kind of investments do we need to do to reach net zero?**

We need significant investment in clean energy projects and infrastructure to get us there. The International Energy Agency has studied different pathways to show that it is possible to achieve this goal by 2050, but it anticipates that we're going to need to invest around \$4 trillion a year by 2030. This represents a 15-fold increase in efficiency investments alone by 2026.

### How are digital technologies helping the industrial sector to achieve this essential sustainability transformation?

We believe technology helps companies accelerate their path to achieving the Paris 1.5C goals by enabling them to operate more efficiently and conserve energy across their operations. As industrial software leaders, AVEVA and Microsoft support customers' drive to net zero by enabling them to accelerate efficiency and resilience with data and artificial intelligence-infused solutions and analytics. Our solutions, combined with Microsoft's leading cloud services, help customers to quantify their carbon output and take steps to reduce it.

### What are the differences between Scope 1, 2 and 3 carbon emissions, and how easy are they to reduce?

Scope 1 and 2 emissions are those generated by our daily operations, such as running a fleet of corporate cars, or operating our businesses. They typically account for a small part of a company's carbon footprint and are generally easier to track and reduce. However, Scope 3 emissions comprise about 97 per cent of our total carbon footprint. These challenging emissions result from activities up and down the value chain, such as when we buy, use and dispose of products from suppliers. But there is one more area of consideration, and that is what is sometimes called Scope 4.

### What are Scope 4 carbon emissions, and why do they matter?

Scope 4 most commonly refers to emissions

generated outside the value chain or life cycle of a product, but that occur as a result of it being used. These are emissions that can be avoided.

At AVEVA, we refer to this positive impact that our products can have on reducing our customer's carbon footprint as our



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'sustainability handprint'. For example, an energy producer can slash emissions by using our software to operate more efficiently. Our software, including many of the solutions developed in partnership with Microsoft, offers businesses the capabilities to understand the carbon footprint of a plant, or to look at different sustainability criteria right at the start, during the engineering phase. Through our handprint, we're able to help our customers significantly reduce emissions.

On this front, we've teamed up with the World Economic Forum on the 2030Vision initiative, to help fast-track technology that advances the global goals and accelerate sustainability-related research and development. ■

Read AVEVA's 2022 sustainability progress report at: [www.aveva.com/en/about/sustainability/esg-reporting/2022-sustainability-progress-reports/](http://www.aveva.com/en/about/sustainability/esg-reporting/2022-sustainability-progress-reports/)



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